

REQUEST FOR PROPOSALS

**MARICOPA ASSOCIATION OF GOVERNMENTS (MAG)
HIGH CAPACITY TRANSIT PLAN**

Maricopa Association of Governments
August 1, 2001

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PUBLIC NOTICE

REQUEST FOR PROPOSALS MAG HIGH CAPACITY TRANSIT PLAN

The Maricopa Association of Governments (MAG) is requesting proposals from qualified consultants to create a high capacity transit system plan. The study will address the feasibility of commuter rail along existing rail corridors, develop a regional commuter rail implementation plan, identify other high capacity alternatives for existing rail corridors where commuter rail is not feasible, and identify new high capacity transit corridors. The estimated time frame for this project is 12 months from the date of the notice to proceed at a cost not to exceed \$500,000.

Detailed proposal requirements may be obtained by contacting the MAG office at the address indicated below or by visiting the MAG Website at www.mag.maricopa.gov. For further information, please contact Dawn M. Coomer, Multi-Modal Program Manager, at (602) 254-6300 or e-mail to dcoomer@mag.maricopa.gov.

Proposals will be accepted until 12:00 noon (Mountain Standard Time) on Wednesday, September 5, 2001 at MAG, 302 North 1st Avenue, Suite 300, Phoenix, Arizona 85003.

SCOPE OF WORK

Introduction

The Maricopa Association of Governments (MAG) is requesting proposals from qualified consultants to create a regional high capacity transit system plan. This project has several partners, including MAG member agencies, the Regional Public Transportation Authority (RPTA), the Arizona Department of Transportation (ADOT), and the citizens of the MAG region. The objectives of the study are to:

1. Conduct a feasibility analysis of commuter rail along existing rail corridors.
2. Identify alternative high capacity transit service concepts for existing rail corridors where commuter rail is not feasible, such as light rail, express bus service, bus rapid transit or elevated rail.
3. Identify new alternative high capacity transit service corridors.
4. Using the results of 1 through 3, above, create a regional high capacity transit system plan.
5. Develop an action/implementation plan to identify roles and responsibilities.

Background

The Maricopa Association of Governments is the designated MPO for transportation planning for the metropolitan Phoenix area. MAG is comprised of the 24 incorporated cities and towns within Maricopa County, the County, the Gila River Indian Community and the Salt River Pima-Maricopa Indian Community. MAG is also the designated Air Quality Planning Agency for the region. The governing body of MAG is the Regional Council, which includes a representative of each member agency, and two representatives from the Arizona State Transportation Board. In addition, the Chairman of the Citizens Transportation Oversight Committee (CTOC) serves as an ex-officio member on matters relating to the Regional Freeway System.

Maricopa County is the fastest growing county in the United States. The Valley just surpassed three million in population and is expected to reach six million by 2040. The region continues to attract residents due to a thriving economy. Between 1980 and 1995, the labor force almost doubled, and the number of jobs is estimated to reach 2.4 million by 2025. As the population continues to expand, traffic congestion will also grow. According to the MAG Long Range Transportation Plan and 2001 Update (LRTP), as the population grows by 55 percent by 2021, regional travel is projected to increase approximately 80 percent by 2021. In response to this growth, the MAG LRTP calls for considerable expansion of regional transportation facilities, including: (1) an 89 percent increase in

freeway/expressway miles; (2) nearly a 50 percent increase in street lane miles; (3) a tripling of local bus services; (4) a quadrupling of express and commuter bus services; and (5) a 39 mile light rail transit system.

However, even with these expansions to the regional transportation system, congestion levels are still projected to increase. Residents are becoming increasingly mobile, and are traveling more miles and making more trips. Given the projected growth for the region over the next twenty years, every viable mode of transportation must be analyzed to assess its potential to meet future travel demand.

Because building more roadways will not solve congestion, which is projected to grow with the continued rapid population growth, the existing highway and street network will need to be supplemented by a significant mass transit system.

Commuter rail service has a number of features that may allow it to play an important role in providing an additional transportation option that complements other transit and roadway modes. A study is needed to evaluate the possible use of existing railroad corridors for commuter rail, estimate the costs and benefits of this service, and assess how it would interact with other modes. In some corridors, the operation of conventional commuter rail may encounter significant obstacles. Other high capacity transit technologies, such as bus rapid transit, elevated rail (including monorail), or subways, may be more appropriate in these corridors. There may still be other areas of the MAG region without railroad rights-of-way where new high capacity transit may be warranted. To pursue these opportunities for commuter rail and high capacity transit in the region, a project is being initiated in the MAG FY 2002 Unified Planning Work Program to conduct a Regional High Capacity Transit Study.

MAG is currently developing a Regional Transportation Plan (RTP) that will replace the existing LRTP. The RTP will provide a policy framework to guide transportation investments over the next twenty years. As a part of the RTP, performance measures will be developed to provide a balanced multi-modal transportation system that meets regional goals and objectives. The planning efforts for the High Capacity Transit Plan developed in this work scope will be integrated with the development of the RTP.

To support the RTP, MAG has also initiated a variety of sub-regional studies to identify multi-modal transportation projects that reflect specific conditions and concerns in each sub-region. Major projects that may be identified in the area studies will be assessed against competing regional projects as part of the RTP process. There are three sub-regional studies that will be developed for different parts of the MAG region: northwest, southwest and southeast.

In addition, the RPTA staff has proposed to conduct Phase 1 of a Regional Transit System Study. This study will develop a baseline of current service statistics and consolidation of programs to provide guidance in the implementation of future transit services. The study will also address key issues in providing coordinated public transportation in a large service area with high population and employment growth. The results of this study will also support the development of the RTP.

Proposed Tasks

The purpose of this section is to outline the major tasks to be performed by the CONSULTANT in order to produce the required analyses and deliverables. The CONSULTANT is encouraged to be creative in developing a sound analytical approach which achieves the goals for this project. It is recommended that the CONSULTANT be as specific as possible in describing the activities that will be performed to support each task. The CONSULTANT is also urged to make maximum use of matrices, tables and drawings in working papers produced for the project to insure conciseness and clarity and to minimize the amount of text required. In preparing a proposal for consideration by MAG, the CONSULTANT is encouraged to be innovative in responding to tasks and/or providing additional tasks.

PART I: GENERAL TASKS

TASK 1: REFINE THE WORK SCOPE

Additional refinements in the scope of work may be necessary during the contract period. The CONSULTANT may refine the scope of work, based upon professional experience, new information, or test results. Revisions to the Scope of Work will be determined jointly by the CONSULTANT and the MAG project manager. A detailed project schedule, including level of coordination with other transit planning efforts, shall be outlined in the revised scope of work. In the event that a revision is needed, the CONSULTANT will furnish the MAG project manager with one copy of an initial revised Scope of Work and Project Schedule, including a revised labor/dollar allocation and project task cost breakdown, for internal review. The CONSULTANT will incorporate any comments from MAG into a final revision and supply one copy to MAG.

Product: Revised scope of work and detailed project schedule.

TASK 2: DEVELOP PUBLIC AND AGENCY INVOLVEMENT PLAN

The CONSULTANT will develop a plan for public and agency involvement with assistance from the MAG Project Manager. The MAG Transportation Review Committee will provide oversight for the development of the Plan with the assistance of an Agency Oversight Team (AOT). The AOT will be comprised of project partners including representation from MAG member agencies, ADOT, RPTA, staff members from the Central Phoenix/East Valley Rail Project and railroad owners and operators. The public involvement plan (PIP) should identify key milestones for consultation, approximate timing and methods for generating input. Innovative and effective efforts to maximize resources in holding meetings are encouraged, such as joint meetings, attending meetings of interested groups at pre-established times and places, integrating with the existing MAG, RPTA and ADOT public involvement process, etc. The PIP shall strive to involve affected and interested persons and agencies early in and throughout the process, and define ways to involve persons

directly affected by potential alternative alignments. The PIP shall involve agencies responsible for implementing the final Plan, especially railroad and transit owners and operators. The PIP shall include dialogue with the Union Pacific and Burlington Northern Railroad companies, and other railroad interests, such as Amtrak, to document the concerns of using existing railroad rights-of-way for commuter rail. The PIP shall be linked with the public and agency involvement process underway in the development of the MAG Regional Transportation Plan.

Stakeholders will be identified with the assistance of the MAG Project Manager, the MAG Transportation Review Committee, and the AOT. The developed list(s) of stakeholders will include names, addresses, phone numbers, fax numbers and e-mail addresses. The CONSULTANT will consult with staff from MAG, ADOT, and RPTA, staff of MAG member agencies, including intergovernmental liaisons, and staff from the Central Phoenix/East Valley Light Rail Transit Project to identify other potential stakeholders to be consulted in developing the plan, and to provide general comments on the draft PIP. The CONSULTANT shall provide resources to maintain the stakeholder list and to fully implement the developed PIP.

Product: Public and Agency Involvement Plan, Stakeholder List

TASK 3: REVIEW PRIOR STUDIES AND CONDUCT REVIEW OF HIGH CAPACITY TRANSIT CHARACTERISTICS

The CONSULTANT shall review prior studies and regional, state and federal policies regarding high capacity transit. The CONSULTANT will conduct a review of the characteristics of commuter rail and other high capacity transit modes in other urban areas, including equipment, facilities and operations. The review shall include information on vehicles, capacity, speeds, frequencies, hours of operation, fares, and support facilities (including park and ride lots, supporting bus service, and maintenance and storage facilities). Commuter rail shall be compared and contrasted with other high capacity transit modes, such as light rail, express bus, bus rapid transit, and elevated rail.

Product: Working paper documenting prior studies and policies regarding high capacity transit. The working paper shall also document the characteristics of commuter rail and other high capacity transit modes.

TASK 4: IDENTIFY AND REFINE THRESHOLDS FOR COMMUTER RAIL AND OTHER HIGH CAPACITY TRANSIT OPERATION

The CONSULTANT shall determine characteristics conducive to commuter rail and other high capacity transit options. These characteristics shall include typical trip patterns, travel time, employment and residential densities, commute distance and station spacing. Thresholds will be used to develop a baseline to assess commuter rail and/or other high capacity transit options.

The CONSULTANT will compare the identified thresholds with current and projected travel characteristics in the MAG region to compare regional travel characteristics with successful commuter rail and high capacity transit systems in other urban areas. Opportunities and constraints will be identified and analyzed. After this analysis, the CONSULTANT will refine the threshold criteria to develop criteria to assess commuter rail and other high capacity transit alternatives. Stakeholders shall be included in the process for developing and refining criteria. Potential criteria could include: impacts on the fixed route and planned light rail transit systems, integration with other transportation system elements, land use impacts and compatibility with land use objectives, accessibility, transit system efficiency, ridership, impacts to roadway mobility and congestion, willingness of rail owner/operator to allow commuter rail, revenue and financing issues, and impacts on Title VI communities. The criteria will include the development of performance measures and other factors for evaluation of alternatives.

As part of the constraints analysis, the CONSULTANT shall examine how public acquisition of rail right-of-way could address operations issues and liability constraints. Public purchase options should also examine how freight operations could be accommodated, such as leaseback of freight operating rights, contracting with a short line freight operator for interchange service, etc. Public acquisition of right-of-way could address several issues including tort liability, operational control, and public reluctance to finance capital improvements on private property. Models of governance for successful commuter rail systems shall also be identified.

As a part of this Task, the CONSULTANT shall review existing land use plans of MAG member agencies to assess whether current and project land use patterns are conducive to high capacity transit.

Product: Working paper documenting characteristics conducive to commuter rail and other high capacity transit, and thresholds for commuter rail and other high capacity transit. The working paper will compare the identified thresholds to current and project travel patterns in the MAG region, and identify performance measures for evaluation of commuter rail and other high capacity transit alternatives. The issue of public acquisition of right-of-way will be explored, along with successful models of governance for commuter rail and other high capacity transit systems. Potential changes to local land use plans to enhance commuter rail and other high capacity transit will also be identified. This working paper will include a methodology to consider the impacts of potential transit investments on Title VI populations and show how environmental justice concerns will be addressed.

TASK 5: DEVELOP TRAVEL DEMAND MODELING METHODS AND IDENTIFY SOCIOECONOMIC FORECAST SCENARIOS

The CONSULTANT will develop commuter rail and other high capacity transit travel demand modeling methods. This model shall be used to project short and long term ridership of commuter rail. The CONSULTANT shall allow for the analysis of

the potential population served by commuter rail and other high capacity transit services to assure that Title VI and environmental justice concerns are addressed. Travel demand modeling shall consider the effect of inter-modal transfers on project ridership, such as bus to train, car to train, walk to train, train to bus or light rail, etc.

To provide a technical basis for analyzing transportation and air quality plans, MAG maintains a comprehensive set of models to systematically project employment and population, traffic demand, and air quality. These models allow both the projection of current trends and the evaluation of planning alternatives. MAG transportation model assignments will be available to the CONSULTANT. As part of this task, the CONSULTANT shall review regional socioeconomic data bases, identify forecast scenarios and prepare data for use in the study process. MAG socioeconomic and land use data will also be available. This data is available by Traffic Analysis Zone (TAZ) for 2000, 2010, 2020, 2025 and 2040. The MAG travel demand models forecast roadway and transit use throughout the metropolitan area. Key outputs of these models include projections of average daily traffic, peak hour traffic trips by purpose and mode, traffic volume to roadway capacity ratios, level of service at intersections, delay and travel time. GIS information on existing land use and land use plans is also available. The primary output of the MAG socioeconomic models is projections of population, households, land use and employment by small area.

Product: An operational commuter rail and high capacity transit modeling system, working paper documenting modeling methods considered, and final modeling method selected.

PART II: COMMUTER RAIL ANALYSIS

TASK 6: INVENTORY FACILITY AND OPERATIONAL CHARACTERISTICS AND ISSUES OF EXISTING RAIL CORRIDORS IN THE REGION

Existing rail facilities in the MAG region shall be identified, along with their operational characteristics. Existing right-of-way widths shall be examined since this factor could affect the potential for double tracking within existing right-of-way. The inventory shall include identification of needed track condition and its acceptability for commuter rail service, as well as stations and an assessment of the condition of existing stations. The inventory shall include the need for system refreshments (steel and tie replacements, signal and grade crossing improvements) and capacity improvements (passing sidings) that will be needed to safely and efficiently move passenger trains within a freight railroad environment. The inventory shall also include current and projected levels of freight service in existing corridors, the number of trains and freight cars per day by mile segments of track, and locations of rail yards, piggyback operations and rail spurs. Potential issues relating to shared use of rail corridors between commuter service and freight and intercity passenger rail service shall be identified.

With the assistance of key stakeholders, issues associated with the provision of commuter rail services in rail corridors where current freight activity is high or is projected to increase that may impact the feasibility of commuter rail shall be identified. The issue of shared use between commuter rail and freight and intercity passenger service, impacts of additional traffic on operations, maintenance and capital costs for rail owners, the negotiation of access rights, and the potential purchase of the track by a public entity in the MAG region will be explored. Grade safety crossing issues, noise impact issues and other neighborhood or adjacent property impacts shall be addressed. With the assistance of key stakeholders, potential solutions to these issues will be identified. Traffic impacts and delays associated with commuter rail service should also be identified.

Product: Working paper that provides an inventory of existing rail facilities in the MAG region and their operational characteristics, including stations, current and project level of freight service. The working paper shall also identify issues associated with operating commuter rail service in freight corridors, document key concerns of key stakeholders, and potential solutions to addressing these issues.

TASK 7: ASSESS FEASIBILITY OF COMMUTER RAIL SERVICE IN EXISTING CORRIDORS AND IDENTIFY FEASIBLE COMMUTER RAIL CORRIDORS

The feasibility of commuter rail in existing rail corridors will be established using the threshold criteria developed in Task 4 and the socioeconomic scenarios developed in Task 5. Commuter rail alternatives shall be developed at a level of detail sufficient to estimate ridership, capital costs, operational costs, and provide information for alternatives evaluation. Costs shall include support facilities and maintenance and storage facilities. Transfer centers, hours of operation and train frequency shall also be considered. The objective of this task is to identify existing rail corridors that are feasible for commuter rail, and existing rail corridors that are not feasible for commuter rail. Commuter rail shall be compared with other feasible high capacity transit options. Pedestrian and motorist safety shall be addressed, including consideration of the safety and operations of commuter rail across rail/highway crossings. Potential impacts on land use, economic development and adjacent neighborhoods shall be identified. Options to make commuter rail more feasible should also be explored. For example, relocating yards and piggyback operations measures to shift freight operations to possibly free-up rail capacity for commuter service should be explored.

As a part of this Task, the CONSULTANT shall consider existing land use plans of MAG member agencies to assess whether current and project land use patterns are conducive to high capacity transit. Potential changes to local plans that would enhance high capacity transit should be identified and addressed as part of the feasibility analysis. The CONSULTANT shall also analyze the potential population served by commuter rail to assure that Title VI and environmental justice concerns are addressed.

Product: Working paper that describes the analysis used to assess the feasibility of commuter rail service in existing rail corridors and identifies corridors that are feasible for commuter rail. Potential changes to local land use plans to enhance the feasibility of high capacity transit will also be identified.

TASK 8: DEFINE REGIONAL COMMUTER RAIL NETWORK AND PRELIMINARY OPERATING CHARACTERISTICS

Based on the results of prior tasks, the CONSULTANT shall identify a regional commuter rail network and preliminary operating characteristics of the commuter rail. The stakeholders and agencies identified in Task 2 shall have input on the operating characteristics of the commuter rail system. In order to achieve system continuity of the proposed system, short sections of new commuter rail corridor may be identified in this Task. Potential termini of the system shall be identified, along with rights-of-way and the costs identified in Task 7. General locations for maintenance and storage facilities, additional park and ride lots, and transfer stations between commuter rail and other modes shall be identified. General operating characteristics, such as hours and frequency of service, will be identified. Successful approaches to governance for the commuter rail system in other areas shall be identified.

Product: A preliminary regional commuter rail network, along with the location of supporting facilities, preliminary operating characteristics and approaches to governance.

TASK 9: ESTIMATE COMMUTER RAIL SYSTEM RIDERSHIP AND POTENTIAL REVENUES; ESTIMATE OPERATING AND CAPITAL COSTS

Based on the operating characteristics identified in Task 8, commuter rail ridership and potential revenues will be identified.

Operating and capital costs of having commuter rail on feasible corridors will be determined. The estimate of operations costs shall include the provision of commuter rail, additions to the planned bus system to support commuter rail, support facilities, and maintenance of facilities and vehicles. Other factors that could affect operations costs may include fees for access rights and indemnification, and maintenance plans. Capital costs will depend on factors such as hours of operation, train frequency, and the need for additional park and ride lots. As part of capital costs, track rehabilitation, ancillary improvements costs, associated equipment, cost of upgrading existing transfer sites and consideration of the role of the regional ITS system in commuter rail operations.

Product: Working paper that describes ridership, potential revenues, and operating and capital costs of the commuter rail service on existing corridors.

PART III: REGIONAL HIGH CAPACITY TRANSIT CORRIDOR ANALYSIS

TASK 10: IDENTIFY ALTERNATIVE HIGH CAPACITY TRANSIT SERVICE CONCEPTS

Using the results of prior tasks, the CONSULTANT will identify alternative high capacity transit service concepts for existing rail corridors not feasible for commuter rail. Existing non-rail right-of-way, such as freeway right-of-way and electric transmission line corridors, that has a potential for shared use with high capacity transit shall be considered as part of this analysis. As a part of this task, the CONSULTANT will review prior and ongoing studies, including but not limited to the Tempe/Scottsdale Major Investment Study and the Chandler Major Investment Study, and recommendations on new regional high capacity transit corridors. Potential additional new high capacity transit corridors to meet projected travel demand may also be identified as part of this task. Alternative high capacity transit service concepts (light rail, elevated rail, bus rapid transit, etc.) applicable to the new corridor will be identified.

Product: Working paper identifying alternative high capacity transit service concepts for existing rail corridors where commuter is not feasible and alternative transit service concepts for new high capacity transit corridors. Alternatives would take into account existing plans and ongoing studies addressing high capacity transit services.

TASK 11: REFINE THRESHOLD AND PERFORMANCE MEASURES; ESTIMATE RIDERSHIP, OPERATIONS, MAINTENANCE AND CAPITAL COSTS

The CONSULTANT shall refine the threshold and performance measures developed for high capacity transit modes created in Task 4 for their applicability to the alternative services identified in Task 11.

Ridership and operating and capital costs of the alternative high capacity transit services identified in Task 10 will be determined. Support facilities and maintenance needs shall be incorporated into the cost estimates. The evaluation of the alternative service concepts should consider the disruption caused to the street network and additional costs to retrofit existing signal systems.

Product: Working paper describing high capacity transit evaluation criteria and performance measures. This working paper will also include estimates of ridership, and operations, maintenance and capital costs of alternative concepts.

TASK 12: EVALUATE ALTERNATIVES; RECOMMEND FEASIBLE HIGH CAPACITY TRANSIT OPTIONS

The CONSULTANT will evaluate alternatives identified in Task 10 with the refined performed measures developed in Task 11. The evaluation of alternatives shall consider the relationship of the proposed alternatives with other transit modes, such

as light rail, express bus and local bus. The evaluation of alternatives shall consider the relationship of the proposed alternatives to land use plans. Potential changes to land use plans that would enhance high capacity transit can be addressed as part of this task. An important consideration is the compatibility of modal options with the existing and planned transit system, and the ability to integrate alternative technologies into an efficient and effective regional transit system.

The CONSULTANT shall also analyze the potential population served by high capacity transit services to assure that Title VI and environmental justice concerns are addressed.

Product: Working paper that describes alternatives and the evaluation of alternatives and recommended feasible high capacity transit options.

PART IV: REGIONAL HIGH CAPACITY TRANSIT SYSTEM PLAN

TASK 13: IDENTIFY AN INTEGRATED HIGH CAPACITY TRANSIT NETWORK AND DEFINE PRELIMINARY OPERATING CHARACTERISTICS

Based on the results of prior tasks, the CONSULTANT shall identify an integrated high capacity transit network and preliminary operating characteristics of the high capacity transit service. The stakeholders and agencies identified in Task 2 shall have input on the operating characteristics of the proposed service. Potential termini of the system shall be identified, along with rights-of-way and the costs identified in Task 7. General locations for maintenance and storage facilities, additional park and ride lots, and transfer stations between commuter rail and other modes shall be identified. General operating characteristics, such as hours and frequency of service, will be identified.

Product: Working paper that describes an integrated high capacity transit network and defines preliminary operating characteristics, such as hours and frequency of service.

TASK 14: ESTIMATE RIDERSHIP AND POTENTIAL REVENUES; ESTIMATE OPERATING AND CAPITAL COSTS

Based on the operating characteristics identified in Task 13, estimated ridership and potential revenues will be identified. Operating and capital costs of the high capacity transit network will be defined. The estimate of operations costs shall include the provision of high capacity transit service, additions to planned support transit services, such as neighborhood circulators, support facilities, maintenance facilities and plans, and vehicles. Capital costs will depend on factors such as hours of operation, train frequency, and the need for additional park and ride lots. As part of capital costs, track rehabilitation, ancillary improvements costs, associated equipment, cost of upgrading existing transfer sites and consideration of the role of the regional ITS in high capacity transit operations.

Product: Working paper that describes ridership, potential revenues, and operating and capital costs of the integrated high capacity transit network service.

TASK 15: DEVELOP IMPLEMENTATION STRATEGIES AND ACTION PLAN

The CONSULTANT shall identify potential partnerships with stakeholders, public agencies and other interested parties. Potential joint ventures for economic development which may help offset infrastructure costs should be explored. The implementation strategy and action plan shall include options for addressing financing, operations, maintenance and capital costs, and phasing recommendations. Integration of commuter rail with existing and proposed freight operations shall be considered in the action plan. Issues, opportunities and constraints identified in prior tasks shall be summarized. Potential solutions to issues and constraints shall be identified. Successful approaches to governance shall also be addressed in this task, as well as possible approaches to preserving rail corridors proposed for abandonment.

Product: An action plan that identifies the key roles and responsibilities of stakeholders, including potential governance structures and corridor preservation strategies, in implementing the high capacity transit system plan. Timing, phasing, and an analysis of issues, opportunities and constraints shall be identified.

Deliverables

The principal work products of this project are the 15 working papers, workshops and meetings as outlined in the PIP, and the Final Report. It is important to note that the CONSULTANT name or logo should not appear on the cover page of any document submitted to MAG; however, these may be included on subsequent pages. In preparing the working papers, it is expected that the CONSULTANT will first provide one (1) unbound copy and one (1) electronic copy of the initial draft document to MAG for internal review. The CONSULTANT will incorporate comments from the internal review into a revised working paper and submit one (1) unbound copy and (1) electronic copy for external review within two weeks of receiving MAG comments. The CONSULTANT will then address or incorporate all comments resulting from the external review and submit five (5) copies of the final working paper and (1) electronic copy to MAG.

Copy ready quality of all deliverables are required. Copies of all drafts and final papers and reports must also be delivered in electronic format (standard Corel or Microsoft office software). Copies must also be supplied in Adobe Acrobat portable document format (.pdf files), to facilitate distribution for comment.

The CONSULTANT will allow sufficient resources to meet with the MAG project manager as necessary and all activities identified in the PIP developed in Task 2. In addition to public meetings as identified in the PIP, there may be periodic updates to the MAG Transportation Review Committee (up to six), periodic updates to the MAG Management Committee (up to three), and presentations to the MAG Regional Council (up to three). Additional meetings shall be budgeted for in the public involvement plan as well, including periodic updates (up to eight) to the Valley

Metro Operations Staff, the Agency Oversight Committee of the Central Phoenix/East Valley Light Rail Transit Project, and the RPTA Board of Directors.

The CONSULTANT will provide to MAG a draft copy of all materials to be presented at the workshops and meetings for review and comment at least three business days prior to the scheduled meeting. Comments received from MAG will be incorporated into the presentation materials prior to the presentation. The CONSULTANT will provide MAG with paper copies of all materials (e.g. slide shows) presented at the workshops and meetings. Slide presentations for the workshops and meetings should be prepared in Microsoft PowerPoint or Corel Presentations format.

All work products created during the course of this project become the property of MAG. Work products include, but are not limited to, written reports, graphic presentations, spreadsheets, databases, data files, computer programs, and support documentation. All Working Papers shall include an executive summary.

1. Working Paper 1: Revised Scope of Work and Detailed Project Schedule (one initial administrative draft in electronic and hard copy format for MAG review; and one electronic version and 5 copies of the revised Working Paper). The revised scope of work shall include the elements listed in Task 1.
2. Working Paper 2: Public and Agency Involvement Plan (one initial administrative draft in electronic and hard copy format for MAG review; and one electronic version and 5 copies of the revised Working Paper).. The public and agency involvement plan shall include the elements listed in Task 2.
3. Stakeholder List including the elements listed in Task 2 (one initial administrative draft in electronic and hard copy format for MAG review; and one electronic version and 5 copies of the revised Working Paper).
4. Working Paper 3: Prior Studies and Review of Commuter Rail and Other High Capacity Transit Service Characteristics (one initial administrative draft in electronic and hard copy format for MAG review; and one electronic version and 5 copies of the revised Working Paper). This working paper shall include the elements listed in Task 3.
5. Working Paper 4: Thresholds and Performance Measures for Commuter Rail and Other High Capacity Transit Operation (one initial administrative draft in electronic and hard copy format for MAG review; and one electronic version and 5 copies of the revised Working Paper). This working paper shall include the elements listed in Task 4.
6. Working Paper 5: Travel Demand Modeling Methods and Socioeconomic Forecast Scenarios (one initial administrative draft in electronic and hard copy format for MAG review; and one electronic version and 5 copies of the revised Working Paper). This working paper shall include the elements listed in Task 5.

7. An operational commuter rail and high capacity transit modeling system as described in Task 5 (one initial administrative draft in electronic and hard copy format for MAG review; and one electronic version and 5 copies of the revised modeling system).
8. Working Paper 6: Inventory of Existing Rail Facilities and Issues Associated with Operating Commuter Rail in Freight Corridors (one initial administrative draft in electronic and hard copy format for MAG review; and one electronic version and 5 copies of the revised Working Paper).. The working paper shall include the elements listed in Task 6.
9. Working Paper 7: Feasibility of Commuter Rail in Existing Corridors and Potential Changes to Land Use Plans to Enhance the Feasibility of High Capacity Transit Service (one initial administrative draft in electronic and hard copy format for MAG review; and one electronic version and 5 copies of the revised Working Paper). This working paper shall include the elements listed in Task 7.
10. Working Paper 8: Preliminary Regional Rail Network (one initial administrative draft in electronic and hard copy format for MAG review; and one electronic version and 5 copies of the revised Working Paper). This working paper shall include the elements listed in Task 8.
11. Working Paper 9: Ridership, Potential Revenues, and Costs of the Preliminary Regional Rail Network (one initial administrative draft in electronic and hard copy format for MAG review; and one electronic version and 5 copies of the revised Working Paper). This working paper shall include the elements listed in Task 9.
12. Working Paper 10: Alternative High Capacity Transit Service Concepts (one initial administrative draft in electronic and hard copy format for MAG review; and one electronic version and 5 copies of the revised Working Paper). This working paper shall include the elements listed in Task 10.
13. Working Paper 11: Evaluation Criteria and Performance Measures, Ridership and Costs of Alternative High Capacity Transit Service Concepts (one initial administrative draft in electronic and hard copy format for MAG review; and one electronic version and 5 copies of the revised Working Paper). This working paper shall include all the elements listed in Task 11.
14. Working Paper 12: Evaluation and Recommended High Capacity Transit Alternatives (one initial administrative draft in electronic and hard copy format for MAG review; and one electronic version and 5 copies of the revised Working Paper). This working paper shall include all the elements listed in Task 12.
15. Working Paper 13: Integrated High Capacity Transit Network and Preliminary Operating Characteristics (one initial administrative draft in electronic and hard copy format for MAG review; and one electronic version and 5 copies of the revised Working Paper). This working paper shall include all the elements listed in Task 13.

16. Working Paper 14: Ridership, Revenues and Costs of the High Capacity Transit Network (one initial administrative draft in electronic and hard copy format for MAG review; and one electronic version and 5 copies of the revised Working Paper). This working paper shall include all items listed in Task 14.
17. Working Paper 15: Analysis of Opportunities and Constraints, Action Plan and Implementation Strategies (one initial administrative draft in electronic and hard copy format for MAG review; and one electronic version and 5 copies of the revised Working Paper). This working paper shall include all the elements listed in Task 15.
18. Final Report. The Final Report (one initial administrative draft in electronic and hard copy format for MAG review; and one electronic version and 5 copies of the revised Final Report) shall summarize the key results of the study in a highly communicative format suitable for different audiences, such as citizens and policy decision-makers. The Final Report shall include an executive summary intended for widespread distribution to diverse audiences.

PROPOSAL REQUIREMENTS

Project Cost and Schedule

The estimated time frame for this project is 12 months from the date of the notice to proceed, with intermediate deliverables due in accordance with the schedule as agreed to between MAG and the CONSULTANT(s). The project cost is not to exceed \$500,000. The date of the notice to proceed is anticipated to be on or about December 1, 2001.

Proposal Delivery

1. Ten (10) copies of the proposal must be submitted by 12:00 noon (Mountain Standard Time) on Wednesday, September 5, 2001 to:

Maricopa Association of Governments
Attention: Dawn M. Coomer
302 North 1st Avenue, Third Floor
Phoenix, Arizona 85003

Timely receipt of proposals will be determined by the date and time the proposal is received at the above address. No late submissions or facsimile or electronic submissions will be accepted. Therefore, hand delivery is encouraged to assure timely receipt.

Proposals will be opened publicly and the name of each entity submitting a proposal will be read at 2:30 p.m. on Wednesday, September 5, 2001 in the Palo Verde Room at the MAG Offices, 302 North 1st Avenue, Phoenix, Arizona 85003.

All material submitted in response to this solicitation becomes the property of MAG and will not be returned.

2. Any questions regarding this Request for Proposals should be directed to the attention of Dawn M. Coomer at MAG, 302 North 1st Avenue, Suite 300, Phoenix, Arizona 85003, or by telephone at (602) 254-6300. The MAG fax number is (602) 254-6490 and questions can be posed electronically to dcoomer@mag.maricopa.gov.
3. A proposers conference for the project has been scheduled for August 8, 2001, 2:30 p.m., Saguaro Room, at the MAG Office, 2nd Floor, 302 North 1st Avenue, Phoenix, Arizona. If you wish to receive notes from the proposers conference and a list of attendees, please e-mail Dawn M. Coomer, MAG Multi-Modal Program Manager at dcoomer@mag.maricopa.gov

Proposal Content

It is required that the proposal:

1. Be limited to a maximum of 30 pages, including cover letter, resumes, and appendices.

2. Be prefaced by a brief statement describing the proposer's organization and outlining its approach to completing the work required by this solicitation. This statement shall illustrate the proposer's overall understanding of the project.
3. Contain a work plan which concisely explains how the CONSULTANT will carry out the objectives of the project. In the work plan, the proposer shall describe each project task and proposed approach to the task as clearly and thoroughly as possible.
4. Include a preliminary schedule for the project in bar-chart format. Indicate all work plan tasks and their durations. The schedule shall clearly identify project deliverable dates.
5. Contain a staffing plan for the project. The plan shall include the following in table format:
 - a. A project organization chart, identifying the project manager.
 - b. Names of key project team members and/or subconsultants. Only those personnel who will be working directly on the project should be cited.
 - c. The role and responsibility of each team member.
 - d. Percent effort (time) of each team member for the contract period.
 - e. The role and level of MAG technical staff support, if any.
6. The Disadvantaged Business Enterprise (DBE) participation goal for this proposal is 11 percent. DBEs proposed are required to be certified by ADOT or the City of Phoenix. Each proposal shall include the following information to meet the DBE requirements:
 - a. A clear and concise description of the work that each DBE will perform; and
 - b. The dollar amount of the participation of each DBE firm participating; or
 - c. If the 11 percent goal is not met, evidence of good faith efforts to meet the goal.
7. Include résumés for major staff members assigned to the project. These résumés should focus on their experience in this type of project.
8. Each firm submitting a proposal is required to certify that it will comply with, in all respects, the rules of professional conduct set forth in A.C.R.R. R4-30-301 (see Appendix A), which is the official compilation of Administrative Rules and Regulations for the State of Arizona.
9. Include proposer's recent experience (last five years) in performing work similar to that anticipated herein. This description shall include the following:
 - a. Date of project.

- b. Name and address of client organization.
 - c. Name and telephone number of individual in the client organization who is familiar with the project.
 - d. Short description of project.
 - e. CONSULTANT team members involved and their roles.
10. A labor cost allocation budget formatted as noted in Appendix B.
 11. All firms proposing on this project will be required to include a “*Proposer’s Registration Form*” (See Appendix C) in the submitted proposal. In addition, a “*Proposer’s Registration Form*” is required to be included for each subcontractor proposed for this project.
 12. Each firm shall document within its proposal any potential conflicts of interest. A conflict of interest shall be cause for disqualifying a CONSULTANT from consideration. A potential conflict of interest includes, but is not limited to:
 - a. Accepting an assignment where duty to the client would conflict with the CONSULTANT’S personal interest, or interest of another client.
 - b. Performing work for a client or having an interest which conflicts with this contract.
 - c. Employing personnel who worked for MAG or one of its member agencies within the past three years.

MAG will be the final determining body as to whether a conflict of interest exists.

Proposal Evaluation and Selection Process

1. All proposals will be evaluated by an evaluation group of MAG staff and selected staff from MAG member agencies. Evaluation criteria include the following:
 - a. Demonstrated understanding of the project through a well-defined work plan consistent with program objectives.
 - b. Clarity of proposal, realistic approach, technical soundness, and enhancements to elements outlined in this Request for Proposals.
 - c. Price, except for the procurement of architectural or engineering (A&E) services.
 - d. Experience of Project Manager and other project personnel in similar studies. Only those personnel assigned to work directly on the project should be cited.

- e. Proven track record in this area of study, especially in negotiating with railroad owners and operators. Proposers should identify the principal people who worked on past projects and the amount of time they devoted to the work effort.
 - f. Availability of key personnel throughout the project effort.
 - g. Ability and commitment to complete the project within the specified time period, meet all deadlines for submitting associated work products, and insure quality control.
 - h. Recognition of work priorities and flexibility to deal with change and contingencies.
2. On the basis of the above evaluation criteria, selected firms submitting proposals may be interviewed prior to the selection of a CONSULTANT. Phone interviews may be made during the week of September 10, 2001 and in-person interviews may be scheduled for the week of September 17, 2001. It is anticipated that the firms selected for interviews will be contacted approximately one week prior to the in-person interview date. MAG strongly suggests that the project manager and key members of the CONSULTANT team be present at the interview.
3. The Maricopa Association of Governments may conduct discussions with offerors who submit proposals determined to be reasonably susceptible of being selected.
4. The Maricopa Association of Governments reserves the right to:
- a. Cancel this solicitation.
 - b. Reject any and all proposals and re-advertise.
 - c. Select the proposal(s) that, in its judgement, will best meet its needs.
 - d. Negotiate a contract that covers selected parts of a proposal, or a contract that will be interrupted for a period or terminated for lack of funds.

ADMINISTRATIVE REQUIREMENTS

1. This Request for Proposals is for a cost-reimbursement plus fee contract.
2. During the course of the project, a monthly progress report is required to be submitted within ten (10) working days after the end of each month until the final report is submitted. Each report shall include a comprehensive narrative of the activities performed during the month, an estimated percent complete for each project task, monthly and cumulative costs by task, activities of any subcontractors, payments to any subcontractors, a discussion of any notable issues or problems being addressed, and a discussion of anticipated activities for the next month (See Appendix D for format).
2. MAG shall retain ten percent (10%) of the lump sum amount, withheld from each invoice, as final payment until completion of the project to the satisfaction and acceptance of the work. Final payment shall be made after acceptance of the final product and invoice.
3. An audit examination of the CONSULTANT'S records may be required.
4. The firm that is selected will be required to comply with Titles VI and VII of the Civil Rights Act of 1964. The contractor will comply with Executive Order 11246, entitled Equal Employment Opportunity, as amended by Executive Order 11375 and as supplemented in Department of Labor Regulations (41 CFR Part 60). The contractor will also be required to comply with all applicable laws and regulations of the U.S. Department of Transportation.
5. The firm selected will be required to comply with MAG insurance requirements, which may include: Workmen's Compensation, Architects and Engineers Professional Liability insurance, Comprehensive General Liability insurance, Business Automobile Liability insurance, and Valuable Papers insurance.
6. The firm selected is required to document any potential conflicts of interest during the contract period. A conflict of interest shall be cause for terminating a contract. A potential conflict of interest includes, but is not limited to:
 - a. Accepting an assignment where duty to the client would conflict with the CONSULTANT'S personal interest, or interest of another client.
 - b. Performing work for a client or having an interest which conflicts with this contract.
 - c. Employing personnel who worked for MAG or one of its member agencies within the past three years.

MAG will be the final determining body as to whether a conflict of interest exists.

7. The firm that is selected will be required to comply with the MAG Disadvantaged Business Enterprise (DBE) Program requirements. The annual overall DBE goal is 11 percent. See Appendix E for a summary of "MAG's Key DBE Regulatory Requirements". A complete copy of MAG's DBE Program is available on the MAG website at www.mag.maricopa.gov.

APPENDIX A

ARIZONA ADMINISTRATIVE CODE R4-30-301

ARTICLE 3. REGULATORY PROVISION

R4-30-301. Rules of professional conduct:

- A. All registrants shall comply substantially with the following standards of professional conduct:
1. A registrant shall not submit any materially false statements or fail to disclose any material facts requested in connection with his application for certification.
 2. A registrant shall not engage in fraud, deceit, misrepresentation, or concealment of material facts in advertising, soliciting, or providing professional services to members of the public.
 3. A registrant shall not knowingly sign, stamp, or seal any plans, drawings, blueprints, land surveys, reports, specifications, or other documents not prepared by the registrant or his bona fide employee.
 4. A registrant shall not knowingly commit bribery of a public servant as proscribed in A.R.S. 13-2602, or knowingly commit commercial bribery as proscribed in A.R.S. 13-2605, or violate any Federal statute concerning bribery.
 5. A registrant shall comply with all Federal, State, and local building, fire, safety, real estate, and mining codes, and any other laws, codes, ordinances, or regulations pertaining to the registrant's professional practice.
 6. A registrant shall not violate any State or Federal criminal statute involving fraud, misrepresentation, embezzlement, theft, forgery, or breach of fiduciary duty, where the violation is related to the registrant's professional practice.
 7. A registrant shall apply the technical knowledge and skill which would be applied by other qualified registrants who practice the same profession; a contemporary "Manual of Surveying Instructions" issued by the Bureau of Land Management, United States Department of Interior and in effect prior to May 23, 1983 to the extent applicable to that professional engagement.
 8. A registrant shall not accept an assignment where the duty to a client or the public would conflict with the registrant's personal interest or the interest of another client without full disclosure of all material facts of the conflict to each person who might be related to or affected by the project or engagement in question.

9. A registrant shall not accept compensation for services related to the same project or professional engagement for more than one party without making full disclosure to all such parties and obtaining the express written consent of all parties involved.
10. Except as provided in Paragraph 11 of this rule, a registrant shall not accept any professional engagement or assignment outside his professional registration unless:
 - a. He is qualified by education, technical knowledge, or experience to perform such work, and
 - b. Such work is both necessary and incidental to the work of his profession on that specific engagement or assignment.

A registered professional engineer may accept professional engagements or assignments in branches of engineering other than that branch in which he has demonstrated proficiency by registration, but only if he has the education, technical knowledge, or experience to perform such engagements or assignments.

11. Except as otherwise provided by law, code, ordinance, or regulation, a registrant may act as the prime professional for a given project and select collaborating professionals; however, the registrant shall perform only those professional services for which he is qualified by registration to perform and shall seal and sign only the work prepared by him or by his bona fide employee working under his direct supervision.
12. A registrant shall make full disclosure to all parties concerning:
 - a. Any transaction involving payments to any person for the purpose of securing a contract, assignment, or engagement, except for actual and substantial technical assistance in preparing the proposal; or
 - b. Any monetary, financial, or beneficial interest the registrant may hold in a contracting firm or other entity providing goods or services, other than the registrant's professional services, to a project or engagement.
13. A registrant shall not solicit, receive, or accept compensation from material, equipment, or other product or services suppliers for specifying or endorsing their products, goods, or services to any client or other person without full written disclosure to all parties.

8/31/83 Supp. 834

APPENDIX B

LABOR COST ALLOCATION BUDGET

LABOR COST ALLOCATION BUDGET

SAMPLE

CONSULTANTS											
Person	Total Hourly Rate	1	2	3	4	5	6	7	8	Total Hours	Total Cost
(NAME)	\$0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	\$00.00
(NAME)	\$0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	\$00.00
(NAME)	\$0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	\$00.00
(NAME)	\$0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	\$00.00
Total Hours		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	\$00.00
Total Cost		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Hours Inception to Date		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

REIMBURSABLE EXPENSES										
Description	1	2	3	4	5	6	7	8	Total Cost	
Office Supplies	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Computer Time	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Travel	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Miscellaneous	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
*any other category as needed (e.g., aerial photos)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total Reimbursable Expenses	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

SUBCONTRACTORS										
Company	1	2	3	4	5	6	7	8	Total Cost	% of Grand Total
(NAME)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
(NAME)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Total Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Hours Inception to Date	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

GRAND TOTAL										
TOTAL COSTS BY TASK										
Description	1	2	3	4	5	6	7	8	Total	
Consultant Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Reimbursable Expenses	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Subcontractors	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sub-Total	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fee@ 0.10	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GRAND TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

APPENDIX C

PROPOSER'S REGISTRATION FORM

PROPOSER'S REGISTRATION FORM

All firms proposing as prime contractors or subcontractors on Maricopa Association of Governments (MAG) projects are required to be registered. **Please complete this form and return it with your proposal.**

If you have any questions about this registration form, please call Art Rullo, Fiscal Services Manager, (602) 254-6300.

1. GENERAL INFORMATION:

Name of Firm:

Street Address:
City, State, ZIP

Mailing Address:
City, State, ZIP

Telephone Number:
Fax Number:
E-mail address:
Web address:
Year firm was established:

Check all that apply:

Is this firm a prime consultant?	_____	Identify speciality:	_____
Is this firm a sub-consultant?	_____	If so, by whom?	_____
Is this firm a certified DBE?	_____		
Is this firm currently debarred?	_____		
Is this firm currently the subject of a debarment proceeding?	_____		

2. FINANCIAL INFORMATION

Firm's annual gross receipts (average of last 3 years):

_____	<\$300,000
_____	\$300,000 - \$599,999
_____	\$600,000 - \$999,999
_____	\$1,000,000 - \$4,999,999
_____	>\$5,000,000

Information will be maintained as confidential to the extent allowed by federal and state law. The undersigned swears that the above information is correct. Any material misrepresentation may be grounds for terminating any contract which may be awarded and initiating action under federal and state laws concerning false statements.

Name, Title

Date

APPENDIX D

PROGRESS REPORT FORMAT

(Progress Report Format)

(Consultant's Letterhead)
April 15, 1999

Maricopa Association of Governments
302 North First Avenue, Suite 300
Phoenix, Arizona 85007

Re: Progress Report No. 3 and Invoice for the Period of March 1999

For Each Task, the CONSULTANT is to provide the percent of work completed to date, a narrative describing the work accomplished, data obtained, problems encountered, meetings held and reports and/or data produced. It is the responsibility of the CONSULTANT to document that the work accomplished for each task during the reporting period is commensurate with the amount of money billed for the task in the invoice.

The narrative describing the work accomplished should be of sufficient detail to enable the project manager to clearly understand the progress on the task during the reporting period. Wherever possible, the CONSULTANT should submit along with the progress report appropriate documentation of work accomplished, such as partial or complete draft technical reports or working papers, etc.

TASK 1 - DATA COLLECTION

Percent of Work Completed: 100 percent.

Work Accomplished: An Airport database in both hardcopy and electronic format was developed and a methodology for keeping the database current was established.

Data Obtained: Information on the airfield facilities, terminal facilities and navigation aids was secured for each of the 15 airports in the study area. The data included, but was not limited to: airport acreage, runway, taxiway and apron dimensions, navigation aids, terminal facilities, automobile parking, navigation aids, lighting and current and historical traffic levels.

Meetings Held: The following meetings were held in connection with the data collection effort:

March 15, 1999, with the Aviation Director of the City of Phoenix to review data collected for Phoenix Sky Harbor International Airport.

March 21, 1999, with the Aviation Advisory Committee to obtain input on the data collection process.

March 23, 1999, with MAG staff to review comments on preliminary database.

March 25, 1999, with Jim Redd of the Arizona Pilots Association to obtain input on the distribution of the database.

Reports or Data Produced: An airport database in electronic format was produced and provided to MAG staff on March 29, 1999.

TASK 2 - INVENTORY

Percent of Work Completed: 100 percent.

Work Accomplished: An airport inventory was completed, and the data obtained in Task 1 were compiled into a Draft Inventory Technical Report for distribution to the Aviation Advisory Committee.

Data Obtained: See Task 1.

Meetings Held: The following meetings were held:

March 1, 1999, met with MAG staff to finalize the outline for the Airport Inventory Technical Report.

March 10, 1999, met with the airport manager of Mesa Falcon Field to obtain suggestions on methods for comparing airport information.

Reports or Data Produced: A draft Airport Inventory Technical Report was produced and distributed to members of the aviation advisory committee for review and comment.

TASK 3 - FORECASTS

Percent of Work Completed: 100 percent.

Work Accomplished: Forecasts of based aircraft and aircraft operations for 15 airports were prepared for 1995, 2005 and 2015. The forecasts were consistent with County control totals of based aircraft reviewed by the Aviation Advisory Committee last month. The forecasts included a breakdown of based aircraft by aircraft type.

Data Obtained: See Task 1.

Meetings Held: March 21, 1999, met with MAG staff to discuss comments on preliminary forecast results.

Reports or Data Produced: A draft forecasts report was produced and distributed to members of the Aviation Advisory Committee for review and comment.

TASK 4 - DEMAND/CAPACITY ANALYSIS AND FACILITY REQUIREMENTS

Percent of Work Completed: 60 percent.

Work Accomplished: For each of the 15 MAG airports an Annual Service Volume (annual airport capacity) and an hourly capacity was computed using the guidance provided in FAA Advisory Circular 150-5060-5.

Data Obtained: See Task 1.

Meetings Held: A meeting was held with Aeronautics Division staff on March 25, 1999 to determine the cause of discrepancies between the capacity calculations in the MAG Regional Aviation System Plan Update and the State Airport System Plan. Some discrepancies were attributed to different data input; others to the methodology used to compute the estimate. Agreement was reached on resolving the discrepancy by both plans using the same data input assumptions, and the State updating their procedure for computing capacity.

Reports or Data Produced: None. However, a draft set of airport capacity estimates is enclosed documenting the assumptions and data input used to prepare the estimates.

TASK 5- ALTERNATIVES

Percent of Work Completed: 25 percent.

Work Accomplished: Other regional aviation systems plans were examined to determine the type of alternatives that were used to meet future demand.

Data Obtained: Regional Aviation System Plans from San Diego, Los Angeles, Denver, Seattle Tucson and Chicago were collected.

Meetings Held: On March 18, 1999, a meeting was held with the Aviation Planner for the Pima Association of Governments to discuss alternatives included in the Tucson Regional Airport Plan.

Reports or Data Produced: None.

TASK 6 - EVALUATION OF ALTERNATIVES

Work on this task has not begun.

TASK 7 - RECOMMENDATIONS

Work on this task has not begun.

TASK 8 - IMPLEMENTATION

Work on this task has not begun.

Problems Encountered

There was difficulty calculating the apron dimensions for the airports because sponsors define the apron area differently, and not all sponsors keep data on the size of the apron in terms of

square feet. To insure consistency among the data a methodology was developed for calculating apron space after consultation with MAG staff and members of the Aviation Advisory Committee. The sum of the individual airport forecasts exceeded the County control totals for based aircraft. The based aircraft forecasts by airport had to be revised to be consistent with the control totals. Some of the capacity calculations prepared for the study were different from the capacity calculations included in the State Airport System Plan. The problem was resolved at a meeting held with the Aeronautics Division staff on March 25, 1999.

Invoice

The enclosed invoice is for the third progress payment of \$17,679.20. The total amount billed to date is \$48,250.00.

Sincerely,

Elmer White
Senior Consultant

Enclosure

cc: Mr. Arnold Black
Dr. Joseph Brown

APPENDIX E

MAG'S KEY DBE REGULATORY REQUIREMENTS

SUMMARY OF MAG'S KEY DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM REQUIREMENTS FOR CONSULTANT CONTRACTS

The Disadvantaged Business Enterprise (DBE) requirements in the Code of Federal Regulations Title 49, Part 26 will apply to this contract. A complete copy of MAG's DBE Program is available on the MAG website at www.mag.maricopa.gov. Please contact Art Rullo, DBE Liaison Officer, at 602-254-6300 with any questions.

DBE Participation Goal and Reporting:

The DBE participation goal for this contract is 11 percent of the contract award. DBEs used for this contract are required to be certified by the Arizona Department of Transportation or the City of Phoenix prior to the award of the contract. A list of Certified DBE organizations is available at the Civil Rights Office of the Arizona Department of Transportation (602-712-7761) or the City of Phoenix, Equal Opportunity Department (602-262-6790).

The Consultant will be required to report monthly on:

- (1) the utilization of any subcontractors (DBE and Non-DBEs), number of hours worked, and costs incurred; and
- (2) any payments made to subcontractors (DBEs and non-DBEs).

Contractor and Subcontractor Assurance:

MAG will incorporate into each contract it signs with a Prime Contractor, and require in each subcontract (that a Prime Contractor signs with a Subcontractor), the following assurance:

“The Contractor, Subrecipient or Subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR 26 in the award and administration of USDOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as MAG deems appropriate.”

Prompt Payment Provision:

“The Prime Contractor will pay Subcontractors for satisfactory performance of contracts no later than fourteen (14) calendar days from the date that the Prime Contractor receives payment from MAG. The Prime Contractor will also return retention payments to the Subcontractor within fourteen (14) calendar days from the date of satisfactory completion of work.”

Prime Contractors Shall:

- Provide the Subcontractor with the name, address and phone number of the person to whom all invoices/billings and statements shall be sent.

- Pay Subcontractors and suppliers within fourteen (14) days of receipt of payment from MAG.
- Stipulate the reason(s) in writing to the subcontractor and to MAG for not abiding by the prompt payment provision. Some possible reasons include:
 1. Failure to provide all required documentation
 2. Unsatisfactory job performance
 3. Disputed work
 4. Failure to comply with other material provisions of the contract
 5. Third-party claims filed or reasonable evidence that a claim will be filed
 6. Reasonable evidence that the contract cannot be completed for the unpaid balance of the contract sum or a reasonable amount for retainage.

Subcontractors Shall:

1. Submit invoices or billing statements to the Prime Contractor's designated contact person in an appropriate format and in a timely manner. The format and the timing of billing statements shall be specified in the contract(s) between the Prime Contractor and the Subcontractor(s).
2. Notify MAG in writing of any potential violation of the prompt payment provision.

MAG will implement appropriate mechanisms to ensure compliance with the requirements of all program participants.

The mechanisms MAG may use, include, but are not limited to:

1. MAG will notify Subcontractors (DBE and Non-DBEs) of the Prime Contractor's responsibility for prompt payment and encourage Subcontractors to notify MAG in writing with any possible violations to the prompt payment mechanism.
2. Withholding payment from Prime Contractors that do not comply with the prompt payment provision noted above, where it has been determined by the MAG DBE Liaison Officer that delay of payment to the Subcontractor is not justified.
3. Stopping work on the contract until compliance issues are resolved.
4. Terminating the contract.